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JUNCUS TRIGLUMIS AND ITS AMERICAN REPRESENTATIVE.

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ONE of the most attractive of arctic-alpine *Junci* is the little plant described by Linnaeus as *Juncus triglumis*. In Eurasia it is characteristic of wet peaty or boggy spots in the arctic and alpine areas, and in America the name *J. triglumis* is familiar to students of the arctic flora and that of the Rocky Mountains south to New Mexico.

My first experiences with the American plant were with Professor Wiegand on the limestone barrens of southeastern Labrador and western Newfoundland in 1910, when the plant, which is quite like the specimens from the Rocky Mountains, was labeled, like them, *J. triglumis*. During the summer of 1924, with Messrs. Bayard Long and Boyd Dunbar, I again collected the Newfoundland plant on the limestone barrens bordering the Straits of Belle Isle. There the plant showed such variation in stature and coloring that it has received more than passing study; and the result of this study is a demonstration that the North American plant is a species distinct from that of Eurasia.

The Eurasian plant, *J. triglumis* L., has, as accurately described by Buchenau, the *bracts* of the inflorescence usually *obtuse* or the lower *mucronate*, and ordinarily *conspicuously* shorter than the flowers. In all the American material (including that from Greenland) seen the *lower bract* is *long-acuminate* or *long-awned* and *equal to or overtopping the lowest flower*. In *J. triglumis* the mature *capsule* is 6–7 mm. long, conspicuously *exserted* from the perianth, firm, castaneous and conic to rounded below the short beak. In the American plant the thinner and usually paler capsule is included or barely exserted, 3–4 mm. long, and rounded to subtruncate at summit. In *J. triglumis* the mature seeds

(including the long white tails) are 2.3–3 mm. long, in the American plant 1.3–2 mm. long.

Besides these fundamental characters which clearly mark the two plants as distinct species there are tendencies which, though not constant, are worth noting: especially the more delicate texture and paler coloring of the bracts and perianths of the American plant, and the weaker filaments of the latter. In *J. triglumis* mature fruiting specimens often have the filaments still firm and straight, the anthers distinctly protruding from the top of the perianth; but in fruiting specimens of the American plant the filaments become shriveled and bent and the anthers turned to one side. Our plant is clearly *J. triglumis*, var. *albescens* Lange, Consp. Fl. Groenl. 123 (1880). Lange's description was exactly to the point:

“Var. β . *albescens*! Caulibus gracilioribus minusque rigidis, glomerulo minore quam in forma typica, saepius bifloro, bracteis et perigonii foliis pallidis, capsula vix exserta.”

Buchenau, however, both in his *Monographia Juncearum* and in his treatment in *Das Pflanzenreich*, has discounted Lange's variety as an unimportant form, saying: “Formae diversae.—Forma bracteis et tepalis pallidis est var. *albescens* Lange, Conspectus fl. Grönland (1880) 123.—Forma bracteis et tepalis nigricantibus: var. α *nigricans* Regel . . . bracteis et tepalis fusciscentibus: var. β . *fuscatus* Regel.”¹ In other words, Buchenau looked upon Lange's plant merely as a trivial color-form and ignored Lange's precise description of the capsule. That the Greenland plant is the characteristic American species is clear from the four Greenland collections at hand, two in flower, two in fruit, and all with the long-acuminate lower bract.

The American species should be called

JUNCUS albescens (Lange), n. comb. *J. triglumis* var. *albescens* Lange, Conspect. Fl. Groenl. 123 (1880).

The following specimens have been examined. GREENLAND: Klaushavn, 1870, *Berggr* (collection cited by Lange); Disco, July 22, 1871, *T. M. Fries*; Christianshaab, July 26, 1884, *Warming & Holm*; Sermiliarsuk, August 4, 1889, *Hartz*. ARCTIC AMERICA: station unknown, 1829–33, *James Ross*. LABRADOR: Square Island, August 16, 1882, *J. A. Allen*; wet moss by springs and open wet spots on limestone tableland, Blanc Sablon, August 1 and 6, 1910, *Fernald & Wiegand*, nos. 3043, 3044. NEWFOUNDLAND: peaty margins of pools in limestone barrens, Sandy (or Poverty) Cove, August 1, 1924,

¹ Buchenau in Engler, *Das Pflanzenr.*, iv. Heft 36: 224 (1906).

Fernald, Long & Dunbar, no. 26,496; peaty limestone barrens, Savage Cove, August 1, 1924, no. 26,495; wet places, Flower Cove, July 3, 1921, *Mary E. Priest*; wet peaty limestone barrens, Flower Cove, July 27–30, 1924, *Fernald, Long & Dunbar*, nos. 26,492–26,494; peaty and turfy pockets in limestone barrens, Brig Bay, August 6, 1924, *Fernald, Long & Dunbar*, no. 26,497; dried brook-bed, barrens at base of serpentine tableland, Bonne Bay, August 27, 1910, *Fernald & Wiegand*, no. 3047; wet runs and boggy spots in limestone barrens, Ingornachoix Bay, August 1, 1910, *Fernald & Wiegand*, no. 3045; in damp marl, Table Mountain, Port à Port Bay, August 16, 1910, *Fernald & Wiegand*, no. 3046, July 26, 1921, *Mackenzie & Griscom*, no. 10,195. QUEBEC: Koksoak River, Ungava, August 23, 1896, *A. P. Low*, no. 13,983; mossy turf, Longue Pointe, Brest, July 31, 1915, *H. St. John*, no. 90,303. KEEWATIN: Ranken Inlet, August 30, 1910, *J. M. Macoun*, no. 79,214; Fullerton, September 4, 1910, *J. M. Macoun*, no. 79,213. MANITOBA: Churchill, July 30, 1910, *J. M. Macoun*, no. 79,212. ALBERTA: Rocky Mountains, *Drummond*; south of Wilcox Pass, August 1, 1908, *S. Brown*, no. 1402; Pipestone Valley, July 7, 1906, *S. Brown*, no. 428; Lake Louise, *J. M. Macoun et al.* COLORADO: head of Clear Creek, 1861, *Parry*, no. 359; Twin Lakes, *Wolf & Rothrock*, no. 937; Seven Lakes, August 14, 1901, *Clements*. BRITISH COLUMBIA: Grizzly Creek, Prairie Hills, July 26, 1907, *Butters & Holway*, no. 236. ALASKA: wet banks, Coal Harbor, Unga Island, Shumigan Islands, July 15, 1872, *M. W. Harrington*.

In some characters *Juncus albescens* is as near *J. biglumis* L. as *J. triglumis*. In *J. biglumis*, however, the lower bract is erect and more elongate; the perianth blackish; the anthers much smaller than in *J. albescens*; the capsules retuse and with purple-margined valves; and the seeds about 1 mm. long and with much shorter tails than in *J. albescens*.

GRAY HERBARIUM.

SUPPLEMENTARY REPORT ON DESMIDS OF CONNECTICUT.

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IN a previous report (see RHODORA 24: 213–224, 236–241) I noted some 266 species and varieties of desmids from Connecticut. These were collected in 22 townships. Since the publication of that report, it has been possible to visit 58 additional townships, covering 3 new counties, and thus adding considerably to the number of desmid stations for the state. A complete list of the townships in which